nal segment noticeably longer than second and the produced downcurved side pieces of the sixth dorsal of the male. In *tularensis* the thorax is yellowish, the third antennal segment is scarcely longer than the second and the sixth dorsal is not produced.

Malthodes frosti and *M. humidus* both run to the last couplet in Mr. Fall's study[3]. In this subhead Mr. Fall had already placed *M. tularensis* and *M. visceratus* Fall. A revision of this couplet might be appropriate to include the new species mentioned above.

Emargination of the sixth ventral truncate at bottom.

A. Seventh ventral sinuate in profile, less widely and deeply forked.
  B. Last dorsal not produced.....*tularensis* Fall
  BB. Last dorsal produced, side pieces projecting downwards.
  C. Last dorsal side pieces projecting downwards, forming fingerlike processes.....*humidus*, n. p.
  CC. Last dorsal side pieces projecting downwards and expanding into large ovate lateral processes.....*frosti*, n. p.
AA. Seventh ventral apically bent, more widely and deeply forked .....*visceratus* Fall

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INSECT ENEMIES OF THE SCARABAEID *POLYPHYLLA CRINITA* LEC.

(Coleoptera: Scarabaeidae)

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In western Washington the Scarabaeid June beetle, *Polyphylla crinita* Lec.[1], emerges from its pupal cell in the ground from about the first half of July into August. On Whidbey Island, State of Washington, the larvae of this beetle are present in great numbers in well-drained medium and lighter sandy soils; locally causing damage in commercial strawberry fields and Dutch iris bulb plantings.

While collecting specimens of *Polyphylla crinita* on Whidbey Island July 11, 1939, I saw one of these beetles flying pursued by two robber flies, *Stenopogon inquinatus* Loew. One of these

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[3] H. C. Fall, Ann. Ent. Soc. Am. Vol. XII, No. 1, pp. 31-42, 1919.

[1] According to Essig, on Vancouver Island, British Columbia, and along the Pacific Coast the species of *Polyphylla* is *P. crinita* Lec. See reference, E. O. Essig, Insects of Western North America, The Macmillan Company, p. 443. 1934.

struck the beetle while flying, causing it to fall to the ground, with the robber fly still attached.

The robber fly had bitten into the *Polyphylla crinita* in the V at the base of the elytra just below the pronotum, and sucked the body juices of the beetle for a total period of sixty-five minutes. It shifted position from time to time, but kept its mouth parts in the beetle.

The beetle apparently died some time before the robber fly finished, for it gradually weakened and became entirely motionless some time before the fly flew away. The robber fly was noticeably distended at the time it finished.

Since then I have noticed a distended robber fly resting on a grass stem above a dead *Polyphylla crinita* adult, and am convinced that the robber fly *Stenopogon inquinatus* Loew. is a regular predator on this species.

I have received an authentic record of several of the Carabid beetle, *Carabus* (*Archicarabus*) *taedatus* Fab., attacking and eating a *Polyphylla crinita* larva; while all were confined. This occurred in 1939 on Whidbey Island. The specimens, over seven *Carabus taedatus* and two *Calosoma tepidum* Lec., were confined in a small glass jar of about one pint capacity, with a small amount of earth in the bottom. When the large *Polyphylla crinita* larva was placed in the jar it was attacked and eaten by three or more beetles, while others ran around the jar, taking no interest in the larva. There is a chance that the *Calosoma tepidum* also attacked the larva, but one or more of the *Carabus taedatus* definitely did. This is the *Carabus* (*Archicarabus*) *taedatus* Fab. described from the State of Washington as the subspecies *vancouvericus* Csiki or *bicolor* Walker[2], but this species is actually identical with the typical form *Carabus* (*Archicarabus*) *taedatus* Fab. and is not a subspecies.[3]

Although neither the robber fly *Stenopogon inquinatus* Loew. nor the beetle *Carabus taedatus* Fab. are present, on Whidbey Island at least, in sufficient numbers to control *Polyphylla crinita*, I have presented this information in the hope that it may add to the knowledge of these species and that it may encourage research on whatever natural enemies of *Polyphylla crinita* exist.

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[2] Leng, Charles W., Catalogue of North American Coleoptera, p. 44, 1920. Also Ibidem, Second and Third Supplements, p. 10, section under *Carabus*, 1933.

[3] Pratt, Robert Y., *Carabus taedatus* Fabr. and its subspecies *vancouvericus* Csiki or *bicolor* Walker are identical. Pan-Pac. Ent., 16 :95, April, 1940.